

**CLAIMS**

1. Method to enhance transmission quality in a Push-to-Talk system comprising a sending mobile unit (MB1), and a receiving mobile unit (MB2) used by a receiving subscriber (B), which receiving unit (MB2) comprises a Play-Out-Buffer (POB) and a Repeat Buffer (RB), whereby a stream of sequences (15-19,25-29,35-39) is sent from the sending unit (MB1) to the receiving unit (MB2), characterized in that:
- the incoming stream of sequences (15-19,25-29,35-39) is collected into the Repeat Buffer (RB) and into the Play-Out-Buffer (POB), which Play-Out-Buffer has a storage size and a point for commencing play-out that provides low voice delay, and which Repeat Buffer has a storage size that provides high sound quality;
  - the incoming stream is played-out from the Play-Out-Buffer (POB) to the receiving subscriber (B);
  - replay is commenced of a defined part (36-39) of the sequences (15-19,25-29,35-39) collected in the Repeat Buffer (RB).
2. Method to enhance transmission quality in a Push-to-Talk system according to claim 1, which replay is requested by the receiving subscriber (B).
3. Method to enhance transmission quality in a Push-to-Talk system according to claim 1, whereby replay is commenced automatically after detection of low play-out quality from the Play-Out-Buffer (POB).

4. Method to enhance transmission quality in a Push-to-Talk system according to any of claims 1-3, which method comprises the following further steps:
- at least one further sequence (40-48) is received to the receiving mobile unit (MB2) during the replay;
  - the defined part (36-39) is re-defined to include also the received at least one sequence (40-48) in the replay.
5. Method to enhance transmission quality in a Push-to-Talk system according to claim 4, which system comprises at least one additional mobile unit (MB3) whereby the at least one further sequence (40-48) received during replay is sent from the additional unit (MB3).
6. Method to enhance transmission quality in a Push-to-Talk system according to any of the claims 1,2,4,5, which method comprises the following further step:
- replay is requested to end with a selected sequence (39).
7. Method to enhance transmission quality in a Push-to-Talk system according to claim 6, whereby the subscriber (B) selects the selected sequence (39) when listened to during the play-out.
8. Method to enhance transmission quality in a Push-to-Talk system according to any of the claims 6-7, which

replay is requested to start a predetermined amount of time (t) backwards from the selected sequence (39).

- 5 9. Method to enhance transmission quality in a Push-to-Talk system according to any of the claims 6-7, which replay is requested to start a number of sequences backwards from the selected sequence (39).
- 10 10. Arrangement to enhance transmission quality in a Push-to-Talk system comprising a sending mobile unit (MB1), and a receiving mobile unit (MB2) used by a receiving subscriber (B), which receiving unit (MB2) comprises a Play-Out-Buffer (POB) and a Repeat Buffer (RB), whereby a stream of sequences (15-19,25-29,35-39) is sent from the sending unit (MB1) to the receiving unit (MB2), characterized in that the arrangement comprises:
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- means to collect the incoming stream of sequences (15-19,25-29,35-39) into the Repeat Buffer (RB) and into the Play-Out-Buffer (POB), which Play-Out-Buffer has a storage size and a point for commencing play-out that provides low voice delay, and which Repeat Buffer has a storage size that provides high sound quality;
  - 20
  - means to play-out the incoming stream from the Play-Out-Buffer (POB) to the receiving subscriber (B);
  - 25
  - means to commence replay of a defined part (36-39) of the sequences (15-19,25-29,35-39) collected in the Repeat Buffer (RB).

11. Arrangement to enhance transmission quality in a Push-to-Talk system according to claim 10, comprising means to request replay by the receiving subscriber (B).

5 12. Arrangement to enhance transmission quality in a Push-to-Talk system according to claim 10, comprising means to commence replay automatically after detection of low play-out quality from the Play-Out-Buffer (POB).

10 13. Arrangement to enhance transmission quality in a Push-to-Talk system according to any of claims 10-12, which arrangement comprises:

15 - Means to re-define the defined part (36-39) to include further received at least one sequence (40-48) in the replay.

14. Arrangement to enhance transmission quality in a Push-to-Talk system according to any of the claims 10, 11, 13, which arrangement comprises:

20 - means to request replay to end with a selected sequence (39).

25 15. Arrangement to enhance transmission quality in a Push-to-Talk system according to claim 14, comprising means to request replay to start a predetermined amount of time (t) backwards from the selected sequence (39).

16. Arrangement to enhance transmission quality in a Push-to-Talk system according to claim 14, comprising means to request replay to start a number of sequences backwards from the selected sequence (39).

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17. Arrangement to enhance transmission quality in a Push-to-Talk system according to any of claims 10-16, whereby the Play-Out-Buffer (POB) is a subset of the Repeat Buffer (RB).

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